IN THE CLAIMS:

The text of all pending claims is set forth below. Cancelled and withdrawn claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented) or (not entered).

Please ADD new claim 22 accordance with the following:

1. (PREVIOUSLY PRESENTED) An automatic transaction apparatus communicating with a host and performing a transaction operation according to an operation of a customer, comprising:

a plurality of I/O units performing a financial transaction operation; and

a control unit controlling one of said plurality of I/O units according to first common transaction control signals from said host, and

wherein said control unit comprises:

a middleware layer operating according to control of a kernel and controlling one of said plurality of I/O units,

a parameter file storing parameters to convert said first common transaction control signals, which are common to each apparatus connected to said host and specified by an interface with said host, into second transaction control signals specific to said middleware layer, and

an I/O control layer converting said first common transaction control signals into said second transaction control signals specific to said middleware layer by referring to said parameter file, and operating said middleware layer based on said second transaction signals,

and wherein said middleware layer specific to said apparatus controls said I/O units performing a financial transaction operation designated by said first common transaction control signals, according to said second transaction control signals.

2. (PREVIOUSLY PRESENTED) The automatic transaction apparatus according to Claim 1, wherein:

said I/O control layer further comprises a plurality of I/O control libraries corresponding to each of said plurality of I/O units; and

said I/O control layer calls up one of said plurality of I/O control libraries according to said first common transaction control signals from said host, reads parameters corresponding to one of said plurality of I/O control libraries from said parameter file, edits said second transaction control signals specific to said middleware layer using the parameters, and operates said middleware layer.

3. (PREVIOUSLY PRESENTED) The automatic transaction apparatus according to Claim 1, wherein said middleware layer comprises:

an I/O client layer intermediating third transaction control signals to one of said plurality of I/O units;

an I/O server layer starting and ending an I/O operation and controlling the communication protocol by said third transaction control signals of said I/O client layer; and

an I/O service provider layer converting messages with each of said plurality of I/O units.

4. (PREVIOUSLY PRESENTED) The automatic transaction apparatus according to Claim 1, wherein said plurality of I/O units implement cash transactions based on said operation of the customer.

5. (PREVIOUSLY PRESENTED) The automatic transaction apparatus according to Claim 1, wherein said I/O control layer receives said first common transaction control signals from said host which follow a cash transaction sequence specified by said customer, operates one of said plurality of I/O units, and returns a reply to said host.

6. (PREVIOUSLY PRESENTED) The automatic transaction apparatus according to Claim 1, wherein said control unit further comprises a browser communicating with said host on the Web and exchanging said first control signals specified by the interface between said I/O control layer and said host.

7. (PREVIOUSLY PRESENTED) The automatic transaction apparatus according to Claim 1, wherein said I/O control layer renders logical the reply from one of said plurality of I/O units and forwards it to said host.

8. (PREVIOUSLY PRESENTED) The automatic transaction apparatus according to Claim 7, wherein:

one of said plurality of I/O units is an I/O unit handling a medium; and

said I/O control layer renders logical the reply regarding said medium from said I/O unit, and forwards it to said host.

9. (PREVIOUSLY PRESENTED) An automatic transaction control method of an automatic transaction apparatus communication with a host and performing a financial transaction operation according to an operation of a customer, comprising:

receiving first common transaction control signals specified by an interface with said host;

controlling a plurality of I/O units performing said financial transaction operation using a middleware layer based on said first transaction control signals; and

referring to a parameter file storing parameters to convert said first common transaction control signals, which are common to each apparatus connected to said host and specified by the interface with said host, into second transaction control signals specific to said middleware layer, converting said first common transaction control signals sent from said host into said second transaction control signals specific to said middleware layer, and operating said middleware layer by said second transaction control signals,

wherein said controlling comprises controlling said I/O units performing a financial transaction operation designated by said first common transaction control signals, by said middleware layer specific to said apparatus operated according to said second transaction control signals.

10. (PREVIOUSLY PRESENTED) The automatic transaction control method according to Claim 9, wherein said operating step further comprises:

calling up an I/O control library from a plurality of I/O control libraries corresponding to each of said plurality of I/O units according to said first common transaction control signals from said host;

reading parameters corresponding to said I/O control library from said parameter file; and

editing said second transaction control signals specific to said middleware layer by using the parameters, and operating said middleware layer.

11. (PREVIOUSLY PRESENTED) The automatic transaction control method according to Claim 9, wherein said control step further comprises controlling one of said plurality of I/O units by said middleware layer having an I/O client layer to intermediate third transaction

control signals to one of said plurality of I/O units, an I/O server layer starting and ending the I/O operation and controlling the communication protocol by said third transaction control signals of said I/O client layer, and an I/O service provider layer converting messages with each of said plurality of I/O units.

12. (PREVIOUSLY PRESENTED) The automatic transaction control method according to Claim 9, wherein said control step comprises controlling said plurality of I/O units to perform cash transactions based on said operation of the customer.

13. (PREVIOUSLY PRESENTED) The automatic transaction control method according to Claim 12, further comprising returning the operation result of one of said plurality of I/O units according to said first common transaction control signals from said host, which follow the cash transaction sequence specified by said customer, to said host as a reply.

14. (PREVIOUSLY PRESENTED) The automatic transaction control method according to Claim 9, wherein said receiving step comprises communicating with said host on the Web and exchanging said first common transaction control signals specified by the interface with said host.

15. (PREVIOUSLY PRESENTED) The automatic transaction control method according to Claim 9, further comprising rendering logical the reply from one of said plurality of I/O units , and forwarding it to said host.

16. (PREVIOUSLY PRESENTED) The automatic transaction control method according to Claim 15, wherein said reply from one of said plurality of I/O units comprises rendering logical the reply regarding said medium from one of said plurality of I/O units handling the medium, and forwarding it to said host.

17. (PREVIOUSLY PRESENTED) A computer-readable medium storing a control program of an automatic transaction apparatus communicating with a host and performing a financial transaction operation according to an operation of a customer, and controlling said automatic transaction apparatus to perform:

receiving said first common transaction control signals specified by an interface with said host;

referring to a parameter file which stores parameters converting said first common transaction control signals, which are common to each apparatus connected to said host and specified by the interface with said host, into said second transaction control signals specific to a middleware layer to control a plurality of I/O units to perform said financial transaction operation, convert said first transaction control signals, sent from said host, into said second transaction control signals unique to said middleware layer, and operate said middleware layer; and

controlling said I/O units performing a financial transaction operation designated by said first common transaction control signals, by said middleware layer specific to said apparatus operated according to said second transaction control signals.

18. (PREVIOUSLY PRESENTED) The computer-readable medium according to Claim 17, further controlling said automatic transaction apparatus to perform rendering logical the reply from one of said plurality of I/O units , and forwarding it to said host.

19. (PREVIOUSLY PRESENTED) The automatic transaction apparatus according to claim 1, wherein said I/O control layer converts said first common transaction control signals comprised of first common commands for said financial transaction into said second transaction control signals comprised of second commands and parameters specific to said middleware.

20. (PREVIOUSLY PRESENTED) The automatic transaction control method according to claim 1, wherein said converting comprises converting said first common transaction control signals comprised of first common commands for said financial transaction into said second transaction control signals comprised of second commands and parameters specific to said middleware.

21. (CANCELLED)

22. (NEW) An automatic financial transaction apparatus comprising:

a plurality of I/O units performing different financial transaction operations designated by first common transaction control signals which are common to each of the plurality of I/O units; and

a control unit controlling one of said plurality of I/O units comprising:

a middleware layer controlling said plurality of I/O units,

an I/O control layer converting said first common transaction control signals into said

second transaction control signals specific to said one of said plurality of I/O units, and operating said one of said plurality of I/O units based on said second transaction signals.